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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,195	06/09/2005	Rainer Schroder	P/22-255	9017
2352 7590 06/22/2007 OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			EXAMINER HANNON, THOMAS R	
			ART UNIT 3682	PAPER NUMBER
			MAIL DATE 06/22/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,195	<b>Applicant(s)</b> SCHRODER ET AL.	
	<b>Examiner</b> Thomas R. Hannon	<b>Art Unit</b> 3682	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,8,12 and 13 is/are rejected.
- 7) ☒ Claim(s) 5-7,9-11,14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/28/2005</u> | 6) <input type="checkbox"/> Other: ____  |

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A substitute specification not including the claims is required pursuant to 37 CFR 1.125(a) because of the substantial amount of amendments presented in the amendment of April 28, 2005.

A substitute specification must not contain new matter. The substitute specification must be submitted with markings showing all the changes relative to the immediate prior version of the specification of record. The text of any added subject matter must be shown by underlining the added text. The text of any deleted matter must be shown by strike-through except that double brackets placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters. The text of any deleted subject matter must be shown by being placed within double brackets if strike-through cannot be easily perceived. An accompanying clean version (without markings) and a statement that the substitute specification contains no new matter must also be supplied. Numbering the paragraphs of the specification of record is not considered a change that must be shown.

The disclosure is objected to because of the following informalities: In referring to Figure 7, the specification uses "a" to refer to angles shown, yet the drawings use "α".

Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kempster (US 1,018,324) in view of Kuttner (US 1,454,057) and Tyson (US 2,016,536).

Kempster discloses a bearing comprising an external bearing ring (a) and an internal bearing ring (e, and page 3, line 35), at least one row of rolling bodies (b) arranged between the external and internal rings, each rolling body having opposite ends and an encircling groove (b2) into and extending around the rolling body between the ends thereof, at least one disk-shaped cage (c) between the rings which revolves together with the rolling bodies, the cage engages in the encircling grooves of the rolling bodies of one row, the cage having an outer circumference, including a number of recesses (c1) therein corresponding to the number of rolling bodies in the row, the inner ring having a running surface toward the rolling bodies. Kempster discloses that the shape of the rollers may be other than straight (page 3, lines 16-18). Kuttner discloses a rolling bearing in which the rollers (8) barrel shaped, and roll on correspondingly shaped inner and outer rings (6, 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the assembly of Kempster such that the rollers have a shape other than straight, including that of barrel-shaped because Kempster specifically discloses that the rollers need not be straight, and Kuttner teaches the specific barrel shape as providing improved characteristics, including self-aligning, increased contact under all operating conditions, as well as being capable of carrying thrust loads. Kempster does not disclose that the recesses in the cage have opposed sides smaller in the region of the outer circumference than the diameter of the rolling body in the region of the groove. Tyson discloses a rolling bearing in which the rollers are spaced by a cage engaging a groove of each of the rolling bodies. Tyson discloses the "the width of each notch mouth is smaller, by a few thousandths of an inch, than the diameter of the roller neck 16" (col. 2, lines 37-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the opposed sides of the

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recesses of Kempster smaller than the diameter of the rolling body in the region of the groove because this is taught and suggested by Tyson as enabling the rollers to be handled as a unit when out of the bearing.

With respect to claim 2, Kempster discloses the maximum radial width of the annular disk cage between the outer and an inner circumferential surface being greater than half the diameter of the rolling body in the region of the groove (Figure 1).

With respect to claim 3, Kempster discloses the maximum radial width of the annular disk cage between the outer and inner circumferential circle is equal to or greater than the diameter of the rolling body in the region of the groove encircling the rolling body (Figure 1).

With respect to claim 4, Kempster inherently discloses the distance relationship claimed as shown in figure 1.

With respect to claims 8 and 12, the encircling groove (b2) of Kempster has mutually parallel side surfaces, and has a width that corresponds approximately to the thickness of the cage (c).

With respect to claim 13, the combination of Kempster and Kuttner inherently results in a total of three or four contact points between the rollers and the races.

Claims 5-7, 9-11, 14, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

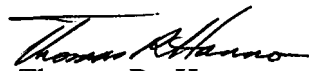
As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Hannon whose telephone number is (571) 272-7104. The examiner can normally be reached on Monday-Thursday (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Thomas R. Hannon  
Primary Examiner  
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trh